JONG-WOOK BAE, MS.

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OBJECTIVE

Aspiring to utilize my expertise in Artificial Intelligence and Robotics, with a specific focus on computer vision and autonomous systems, to drive innovation and excellence in a challenging role at a leading technology company.

EDUCATION

Hanynag University *Department of Artificial Intelligence* **Seoul, Republic of Korea**
Master of Science in Artificial Intelligence *09/2021-08/2023*
Hancom Academy **Pangyo, Republic of Korea**
Autonomous vehicle H/W and S/W platform development expert course *05/2020-10/2020*
Inha University *Department of Mechanical Engineering* **Incheon, Republic of Korea**
Bachelor of Science in Mechanical Engineering *03/2011-02/2018*

INVOLVEMENT

Social interactive pedestrian perception and trajectory prediction dataset for mobile robot **Seoul, Republic of Korea**
DEEPX <Distributed on-chip memory-processor model PIM semiconductor technology development> *06/2022-05/2023*
- Led sensor suite development for mobile robotics, enhancing detection and prediction capabilities
- Data analysis, benchmarks for object detection, multi-object tracking, and trajectory prediction

Development of Multi-Object Tracking and Sensor Calibration Tool **Pangyo, Republic of Korea**
Hanwha Aerospace <Development of multi-object tracking technology based on sensor fusion> *03/2022-05/2023*
- Development of real-time object detection and MOT algorithms for unmanned armored vehicle operations
- Implemented LiDAR-camera, and multi-LiDAR calibration tools using ROS for sensor fusion accuracy

Simultaneous Object detection and SLAM using LiDAR sensor **Seoul, Republic of Korea**
ITRC <Research on perception/control technology of autonomous vehicles> *01/2022-04/2022*
- Engineered 3D object detection and SLAM algorithms for LiDAR-based robots
- Participation at the 'ITRC Talent Development Fair 2022' forum

Traffic Accident Prevention Service using Public CCTV **Pangyo, Republic of Korea**
KATECH <2020 AI Training Data Online Hackathon> *12/2020-01/2021*
- *Application alert and Autonomous Emergency Braking (AEB) system using object motion forecasting*
- 3rd Award in the AI Hackathon, highlighting the project's innovation in AEB systems

ADAS Solution via Vehicle Trajectory Prediction **Pangyo, Republic of Korea**
IITP <Autonomous vehicle H/W and S/W platform development expert course> team project 0*7/2020-07/2021*
- ADAS Waring System integrating Object detection, Multi-Object Tracking(MOT), and trajectory prediction in ROS
- Awarded the Project Excellence Award for innovative contributions to ADAS technology

WORK EXPERIENCE

Enlighten **Seoul, Republic of Korea**
Project Manager, *New Business Developer* *08/2019-04/2020*
- Led B2B and B2G business development initiatives at a social venture focusing on environmental sustainability
- Development of office automation programs for customer relationship management (CRM)

Artisan & Ocean, Inc. **Suwon, Republic of Korea**
Internship, *3D Modeling, Crowdfunding Marketing Team Leader* *03/2018-06/2018*
- 'DIVEROID Black' prototype of dive computer 3D modeling
- Indiegogo 'DIVEROID mini' crowdfunding project leader & global marketing; funded 180% of goal

PUBLICATIONS

Jongwook Bae*, Jungho Kim*, Junyong Yun*, Changwon Kang*, Jeongseon Choi, Chanhyeok Kim, Junho Lee, Jungwook Choi, Jun Won Choi, “SiT Dataset: Socially Interactive Pedestrian Trajectory Dataset for Social Navigation Robots”, Thirty-seventh Conference on Neural Information Processing Systems Datasets and Benchmarks Track, *(2023)*

Jongwook Bae, Young Woo Lee, Junho Koh, Jaeyoung Lee, Jun Won Choi**,** " Multi-Sensor Calibration Techniques for Camera-LiDAR Sensor Fusion", *Transactions of the Korean Society of Automotive Engineers - Vol. 30, No. 10, pp.849-858, (2022)*